

# Shipley Ronal - North America

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## Shipley's History

### Modest Beginnings

Shipley Company was founded in 1957 by **Lucia H. Shipley** and **Charles R. Shipley, Jr.**, in a small laboratory in Newton, Massachusetts. The original business focus of Shipley Company was to design and build equipment for printed circuit production, an industry that was in its infancy in the late fifties. Charles and Lucia Shipley soon found that the need for equipment was actually not as great as the need for special purpose chemistry and production processes, in particular those for thru-hole plating.

### Shipley Company Develops Momentum

In 1958 Shipley introduced a revolutionary single-step catalyst that enabled thru-hole plating on non-conductive surfaces. In the early sixties, Shipley began development of products for plating on plastics and metal finishing applications. Our plating on plastic chemistries were instrumental in the developing industry of decorative plating of household items and automotive parts. Additionally, Shipley's initial electroless nickel for metal finishing was unique and exhibited the advantage of an easier bath replenishment process.

In the early sixties, Shipley was a pioneering force in providing positive photoresists for the emerging semiconductor industry. Early generation negative resists suffered from dimensional swelling which limited their use



Original Shipley Headquarters  
Newton, Massachusetts

to older technology devices containing larger features. The introduction of positive tone resists in an industry entrenched in the use of negative tone patterning was difficult at first. As companies began to develop more demanding lithographic processes for next generation devices, a shift to positive resists was necessary. Shipley company also led the industry in converting its positive resists to safer-alternative solvent systems in the eighties to protect the health of the fab operators.

Today Shipley Company is proud to offer a complete line of resists, anti-reflectants, developers, removers, solvents, and thinners to serve the needs of its microelectronics customers.

### **The Birth of a Global Enterprise**

Shipley Chemicals, Ltd., the first wholly-owned subsidiary of Shipley Company, was formed in Coventry, England, which soon became the home of Shipley Europe, Ltd. In 1976, Shipley Far East, Ltd., was formed in Tokyo and a production facility was opened in Niigata, Japan. These two locations in conjunction with manufacturing facilities in the United States have been the cornerstone of Shipley's global presence.

### **Shipley Company, L.L.C., A World Class Materials Power-House Backed By Rohm and Haas Corporation**

On March, 12, 1992, Shipley became a wholly-owned subsidiary of Rohm and Haas, the renowned Philadelphia-based multinational chemical company.

In the following year, Shipley completed construction of a state-of-the-art ultra-high purity (UHP) manufacturing facility at its Marlborough, Massachusetts, location, which has enabled Shipley to be at the forefront of quality in the electronics materials industry.

### **Shipley Expansion Prepares It For Year 2000 Opportunities**

During the late 1990s, Shipley's product offerings have expanded with the acquisitions of Pratta, LeaRonan, and Morton Electronic Materials. These acquired business units have been combined with Shipley's existing PWB business to form our Shipley Ronan™ Division, the largest most formidable electronic materials organization of its kind.

Majority ownership positions in Rodel and SVC bolster the Shipley Microelectronics product thrusts and enable substantial growth prospects in the area of advanced interconnect. Shipley's MOSAIC™ program leverages the strengths of its new acquisitions and expanded equity interests to provide leading copper plating and planarization technologies and products for its customers. Combined with its highly evolved advanced imaging products for i-Line, 248, 193, 157 nm and e-beam exposure systems, as well as, newly developed nano-porous film technology from Rohm and Haas, these plating and planarization technologies complete the MOSAIC of integrated products and processes to form the most cost effective solution to advanced interconnect fabrication.

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